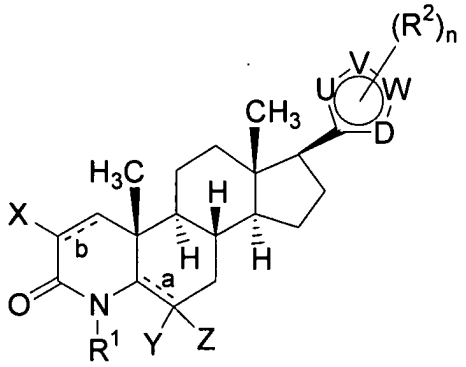
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

1. (Presently amended) A compound of structural formula I:



I

a pharmaceutically acceptable salt or a stereoisomer thereof,

wherein:

a and b are each independently chosen from a double bond and a single bond;

X is hydrogen or halogen;

when a is a single bond, Y and Z are each independently chosen from hydrogen, C_{1-4} alkyl, and halogen, or Y and Z, together with the carbon atom to which they are attached, form a cyclopropyl group;

when a is a double bond, Y is chosen from hydrogen, C_{1-4} alkyl, and halogen;

n is 0, 1, 2, or 3;

U, V, W, and D are each independently chosen from CH, N, and S~~, and O~~, provided that at least one of U, V, W, and D is chosen from N and S~~, and O~~, and further provided that when one of U, V, W, and D is S ~~or O~~, then the other ring members are independently chosen from N and CH;

R^1 is chosen from hydrogen, CF_3, carbonyl(C_{1-3} alkyl), hydroxyl, C_{1-4} alkoxy, halogen, C_{1-3} alkyl, hydroxymethyl, and (C_{0-6} alkyl)$_2$amino, wherein said alkyl and alkoxy are each optionally substituted with one to seven fluorine atoms;

R^2 is chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}$C$_{2-10}$ alkynyl,
C$_{1-10}$ alkenylamino,
(carbonyl)$_{0-1}$aryl C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl,
(C$_{3-8}$)heterocyclyl C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl,
C$_{1-4}$acylamino C$_{0-10}$ alkyl,
C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
di-(C$_{1-10}$ alkyl)amino C$_{0-10}$ alkyl,
arylC$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
(arylC$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
(C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
(C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
(C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl aminocarbonylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonylamino,
(aryl C$_{1-10}$ alkyl)$_{1-2}$aminocarbonylamino,
C$_{0-10}$ alkyl aminocarbonylamino,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl aminocarbonylamino,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl aminocarbonylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonyl C$_{0-10}$ alkyl,
(aryl C$_{1-10}$ alkyl)$_{1-2}$aminocarbonyl C$_{0-10}$ alkyl,
C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
aryl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
aryl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
amino C$_{0-10}$ alkyl carbimidoylC$_{0-10}$ alkylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonyl,

(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonyl,

C_{1-10} alkoxy (carbonyl)$_{0-1}C_{0-10}$ alkyl,

C_{0-10} alkylcarboxy C_{0-10} alkylamino,

carboxy C_{0-10} alkyl,

carboxy aryl,

carboxy C_{3-8} cycloalkyl,

carboxy C_{3-8} heterocyclyl,

carboxy C_{3-8} heterocycloalkyl,

C_{1-10} alkoxy,

C_{1-10}alkyloxy C_{0-10}alkyl,

aryloxy,

C_{3-8} cycloalkyloxy,

C_{3-8} heterocyclyloxy,

C_{3-8} heterocycloalkyloxy,

C_{1-10} alkylcarbonyloxy,

C_{3-8} heterocyclyl C_{0-10} alkylcarbonyloxy,

C_{3-8} heterocycloalkyl C_{0-10} alkylcarbonyloxy,

C_{3-8} cycloalkyl C_{0-10} alkylcarbonyloxy,

aryl C_{0-10} alkylcarbonyloxy,

C_{1-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,

C_{3-8} heterocyclyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,

C_{3-8} heterocycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,

C_{3-8} cycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,

aryl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} heterocyclyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} heterocycloalkyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} cycloalkyl C_{0-10}alkyl)$_{1-2}$aminocarbonyloxy,

hydroxy C_{0-10}alkyl,

hydroxycarbonylC_{0-10}alkoxy,

hydroxycarbonylC_{0-10}alkyloxy,

C_{1-10} alkylthio,

C_{1-10} alkylsulfinyl,

aryl C_{0-10} alkylsulfinyl,

C_{3-8} heterocyclyl C_{0-10} alkylsulfinyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylsulfinyl,

C_{3-8} cycloalkyl C_{0-10} alkylsulfinyl,

C_{1-10} alkylsulfonyl,

aryl C_{0-10} alkylsulfonyl,

C_{3-8} heterocyclyl C_{0-10} alkylsulfonyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylsulfonyl,

C_{3-8} cycloalkyl C_{0-10} alkylsulfonyl,

C_{1-10} alkylsulfonylamino,

aryl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,

C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,

cyano,

nitro,

perfluoroC_{1-6}alkyl, and

perfluoroC_{1-6}alkoxy, and

wherein R^2 is optionally substituted with at least one substituent, R^3, chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}C_{2-10}$ alkynyl,

(carbonyl)$_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,

(C_{3-8})heterocycloalkyl C_{0-10} alkyl,

C_{1-4}acylamino C_{0-10} alkyl,

C_{0-10} alkylamino C_{0-10} alkyl,

di-(C_{1-10} alkyl)amino C_{0-10} alkyl,

arylC_{0-10} alkylamino C_{0-10} alkyl,

(arylC_{0-10} alkyl)$_2$amino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{0-10} alkyl carbimidoylC_{0-10} alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyl,

C_{1-10} alkoxy (carbonyl)$_{0-1}C_{0-10}$ alkyl,

C_{1-10}alkyloxy C_{0-10}alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

hydroxycarbonylC_{0-10}alkoxy,
(C_{1-10} alkyl)$_2$aminocarbonyloxy,
(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,
hydroxy C_{0-10}alkyl,
C_{1-10} alkylsulfonyl,
C_{1-10} alkylsulfonylamino,
aryl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,
C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,
cyano,
nitro,
perfluoroC_{1-6}alkyl, and
perfluoroC_{1-6}alkoxy,

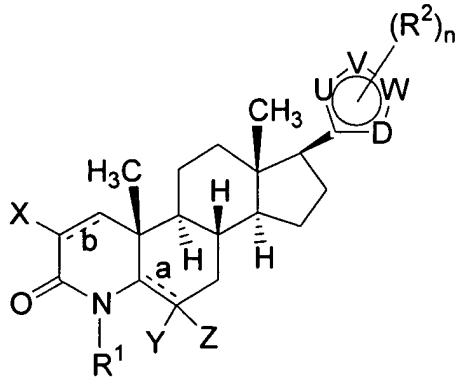
wherein R^3 is optionally substituted with one or more groups chosen from hydrogen, OH, (C_{1-6})alkoxy, halogen, CO_2H, CN, O(C=O)C_1-C_6 alkyl, NO_2, trifluoromethoxy, trifluoroethoxy, -O$_{(0-1)}$(C_{1-10})perfluoroalkyl, and NH_2.

2. (Original) A compound according to Claim 1, wherein X is fluorine.

3. (Original) A compound according to Claim 1, wherein X is hydrogen.

4. (Original) A compound according to Claim 1, wherein a is a single bond and b is a double bond.

5. (Original) A compound according to Claim 1 and of structural formula II, wherein:



II

a pharmaceutically acceptable salt or a stereoisomer thereof,

wherein:

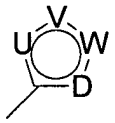
a and b are each independently chosen from a double bond and a single bond;

n is 0, 1, 2, or 3;

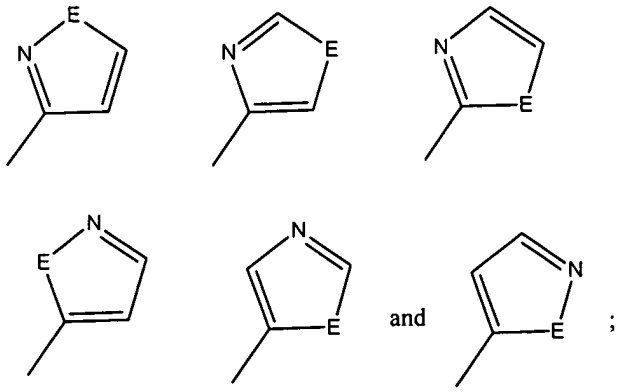
X is hydrogen or halogen;

when a is a single bond, Y and Z are each independently chosen from hydrogen, C_{1-4} alkyl, and halogen, or Y and Z, together with the carbon atom to which they are attached, form a cyclopropyl group;

when a is a double bond, Y is chosen from hydrogen, C_{1-4} alkyl, and halogen;



is chosen from:



E is S or O;

R^1 is chosen from: hydrogen, CF_3, carbonyl(C_{1-3} alkyl), hydroxyl, C_{1-4} alkoxy, halogen, C_{1-3} alkyl, hydroxymethyl, and (C_{0-6} alkyl)$_2$amino, wherein said alkyl and alkoxy are each optionally substituted with one to seven fluorine atoms;

R^2 is chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}C_{2-10}$ alkynyl,

C_{1-10} alkenylamino,

(carbonyl)$_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkyl,

C_{1-4}acylamino C_{0-10} alkyl,

C_{0-10} alkylamino C_{0-10} alkyl,

di-(C_{1-10} alkyl)amino C_{0-10} alkyl,

arylC$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
(arylC$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
C$_{1-10}$ alkoxy (carbonyl)$_{0-1}$C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkylamino C$_{0-10}$ alkyl,
(C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
(C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
(C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl)$_2$amino C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl aminocarbonylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonylamino,
(aryl C$_{1-10}$ alkyl)$_{1-2}$aminocarbonylamino,
C$_{0-10}$ alkyl aminocarbonylamino,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl aminocarbonylamino,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl aminocarbonylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonyl C$_{0-10}$ alkyl,
(aryl C$_{1-10}$ alkyl)$_{1-2}$aminocarbonyl C$_{0-10}$ alkyl,
C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
aryl C$_{0-10}$ alkyl aminocarbonyl C$_{0-10}$ alkyl,
C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ cycloalkyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocyclyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
C$_{3-8}$ heterocycloalkyl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
aryl C$_{0-10}$ alkyl carbonylamino C$_{0-10}$ alkyl,
amino C$_{0-10}$ alkyl carbimidoylC$_{0-10}$ alkylamino,
(C$_{1-10}$ alkyl)$_2$aminocarbonyl,
(aryl C$_{1-10}$ alkyl)$_{1-2}$aminocarbonyl,
C$_{1-10}$ alkoxy (carbonyl)$_{0-1}$C$_{0-10}$ alkyl,
C$_{0-10}$ alkylcarboxy C$_{0-10}$ alkylamino,
carboxy C$_{0-10}$ alkyl,
carboxy aryl,
carboxy C$_{3-8}$ cycloalkyl,
carboxy C$_{3-8}$ heterocyclyl,
carboxy C$_{3-8}$ heterocycloalkyl,

C_{1-10} alkoxy,

C_{1-10}alkyloxy C_{0-10}alkyl,

aryloxy,

C_{3-8} cycloalkyloxy,

C_{3-8} heterocyclyloxy,

C_{3-8} heterocycloalkyloxy,

C_{1-10} alkylcarbonyloxy,

C_{3-8} heterocyclyl C_{0-10} alkylcarbonyloxy,

C_{3-8} heterocycloalkyl C_{0-10} alkylcarbonyloxy,

C_{3-8} cycloalkyl C_{0-10} alkylcarbonyloxy,

aryl C_{0-10} alkylcarbonyloxy,

C_{1-10} alkyloxy(carbonyl)$_{0-1}$$C_{0-10}$ alkylamino,

C_{3-8} heterocyclyl C_{0-10} alkyloxy(carbonyl)$_{0-1}$$C_{0-10}$ alkylamino,

C_{3-8} heterocycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}$$C_{0-10}$ alkylamino,

C_{3-8} cycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}$$C_{0-10}$ alkylamino,

aryl C_{0-10} alkyloxy(carbonyl)$_{0-1}$$C_{0-10}$ alkylamino,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} heterocyclyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} heterocycloalkyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

(C_{3-8} cycloalkyl C_{0-10}alkyl)$_{1-2}$aminocarbonyloxy,

hydroxy C_{0-10}alkyl,

hydroxycarbonylC_{0-10}alkoxy,

hydroxycarbonylC_{0-10}alkyloxy,

C_{1-10} alkylthio,

C_{1-10} alkylsulfinyl,

aryl C_{0-10} alkylsulfinyl,

C_{3-8} heterocyclyl C_{0-10} alkylsulfinyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylsulfinyl,

C_{3-8} cycloalkyl C_{0-10} alkylsulfinyl,

C_{1-10} alkylsulfonyl,

aryl C_{0-10} alkylsulfonyl,

C_{3-8} heterocyclyl C_{0-10} alkylsulfonyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylsulfonyl,

C_{3-8} cycloalkyl C_{0-10} alkylsulfonyl,

C_{1-10} alkylsulfonylamino,

aryl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,

C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,

cyano,

nitro,

perfluoroC_{1-6}alkyl, and

perfluoroC_{1-6}alkoxy, and

wherein R^2 is optionally substituted with at least one substituent R^3;

R^3 is chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}C_{2-10}$ alkynyl,

(carbonyl)$_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,

(C_{3-8})heterocycloalkyl C_{0-10} alkyl,

C_{1-4}acylamino C_{0-10} alkyl,

C_{0-10} alkylamino C_{0-10} alkyl,

di-(C_{1-10} alkyl)amino C_{0-10} alkyl,

arylC_{0-10} alkylamino C_{0-10} alkyl,

(arylC_{0-10} alkyl)$_2$amino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{0-10} alkyl carbimidoylC_{0-10} alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyl,

C_{1-10} alkoxy (carbonyl)$_{0-1}C_{0-10}$ alkyl,

C_{1-10}alkyloxy C_{0-10}alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

hydroxycarbonylC_{0-10}alkoxy,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

hydroxy C_{0-10}alkyl,

C_{1-10} alkylsulfonyl,

C_{1-10} alkylsulfonylamino,

aryl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,
C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,
cyano,
nitro,
perfluoroC_{1-6}alkyl, and
perfluoroC_{1-6}alkoxy,

wherein R^3 is optionally substituted with one or more groups chosen from hydrogen, OH, (C_{1-6})alkoxy, halogen, CO_2H, CN, $O(C=O)C_1$-C_6 alkyl, NO_2, trifluoromethoxy, trifluoroethoxy, -$O_{(0-1)}(C_{1-10})$perfluoroalkyl, and NH_2.

6. (Original) A compound according to Claim 5, wherein R^1 is chosen from: hydrogen, CF_3, hydroxyl, and C_{1-3} alkyl optionally substituted with one to seven fluorine atoms.

7. (Original) A compound according to Claim 6, wherein R^1 is chosen from: hydrogen and C_{1-3} alkyl.

8. (Original) A compound according to Claim 7, wherein R^1 is methyl.

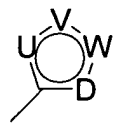
9. (Original) A compound according to Claim 8, wherein R^2 is chosen from:

halogen,
$(carbonyl)_{0-1}C_{1-10}$ alkyl,
$(carbonyl)_{0-1}C_{2-10}$ alkenyl,
$(carbonyl)_{0-1}C_{2-10}$ alkynyl,
C_{1-10} alkenylamino,
$(carbonyl)_{0-1}$aryl C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl,
(C_{3-8})heterocyclyl C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkyl,
C_{1-4} acylamino C_{0-10} alkyl,
C_{0-10} alkylamino C_{0-10} alkyl,
di-(C_{1-10} alkyl)amino C_{0-10} alkyl,
arylC_{0-10} alkylamino C_{0-10} alkyl,
(arylC_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,
C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,
(C_{3-8} cycloalkyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,

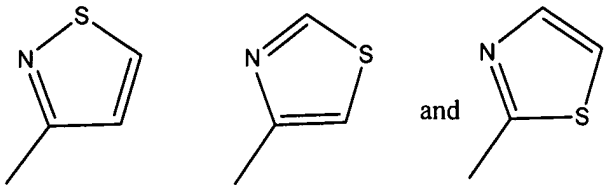
(C_{3-8} heterocyclyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
(C_{3-8} heterocycloalkyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl aminocarbonylamino,
(C_{1-10} alkyl)$_2$aminocarbonylamino,
(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonylamino,
C_{0-10} alkyl aminocarbonylamino,
C_{3-8} heterocyclyl C_{0-10} alkyl aminocarbonylamino,
C_{3-8} heterocycloalkyl C_{0-10} alkyl aminocarbonylamino,
C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} heterocyclyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
aryl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
amino C_{0-10} alkyl carbimidoylC_{0-10} alkylamino,
C_{0-10} alkylcarboxy C_{0-10} alkylamino,
C_{1-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocyclyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} cycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
aryl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{1-10} alkylsulfonylamino,
aryl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,
C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,
cyano,
nitro,
perfluoroC_{1-6}alkyl, and
perfluoroC_{1-6}alkoxy, and

wherein R^2 is optionally substituted with at least one substituent R^3.

10. (Original) A compound according to Claim 9, wherein E is S.

11. (Original) A compound according to Claim 10, wherein 

is:

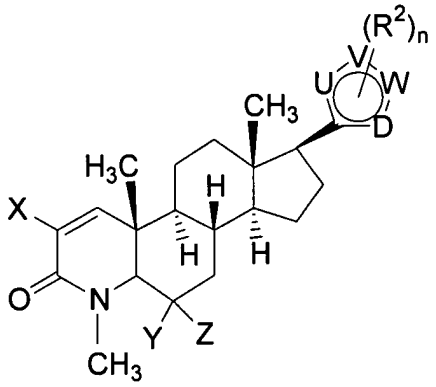


and

12. (Original) A compound according to Claim 11, wherein b is a double bond.

13. (Original) A compound according to Claim 12, wherein a is a single bond and b is a double bond.

14. (Original) A compound according to Claim 1 and of structural formula III,



III

a pharmaceutically acceptable salt or a stereoisomer thereof, wherein:

X is hydrogen or halogen;

n is 0, 1, 2, or 3;

Y and Z are each independently chosen from hydrogen, C_{1-4} alkyl, and halogen, or Y and Z, together with the carbon atom to which they are attached, form a cyclopropyl group;

U, V, W, and D are each independently chosen from N and CH, provided that at least one of U, V, W, and D is CH;

R^2 is chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}C_{2-10}$ alkynyl,

C_{1-10} alkenylamino,

(carbonyl)$_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkyl,
C_{1-4}acylamino C_{0-10} alkyl,
C_{0-10} alkylamino C_{0-10} alkyl,
di-(C_{1-10} alkyl)amino C_{0-10} alkyl,
arylC_{0-10} alkylamino C_{0-10} alkyl,
(arylC_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,
C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,
(C_{3-8} cycloalkyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
(C_{3-8} heterocyclyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
(C_{3-8} heterocycloalkyl C_{0-10} alkyl)$_2$amino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl aminocarbonylamino,
(C_{1-10} alkyl)$_2$aminocarbonylamino,
(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonylamino,
C_{0-10} alkyl aminocarbonylamino,
C_{3-8} heterocyclyl C_{0-10} alkyl aminocarbonylamino,
C_{3-8} heterocycloalkyl C_{0-10} alkyl aminocarbonylamino,
(C_{1-10} alkyl)$_2$aminocarbonyl C_{0-10} alkyl,
(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonyl C_{0-10} alkyl,
C_{0-10} alkyl aminocarbonyl C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl aminocarbonyl C_{0-10} alkyl,
C_{3-8} heterocyclyl C_{0-10} alkyl aminocarbonyl C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkyl aminocarbonyl C_{0-10} alkyl,
aryl C_{0-10} alkyl aminocarbonyl C_{0-10} alkyl,
C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} cycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} heterocyclyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{3-8} heterocycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
aryl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
amino C_{0-10} alkyl carbimidoylC_{0-10} alkylamino,
(C_{1-10} alkyl)$_2$aminocarbonyl,
(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonyl,
C_{1-10} alkoxy (carbonyl)$_{0-1}C_{0-10}$ alkyl,
C_{0-10} alkylcarboxy C_{0-10} alkylamino,
carboxy C_{0-10} alkyl,

carboxy aryl,
carboxy C_{3-8} cycloalkyl,
carboxy C_{3-8} heterocyclyl,
carboxy C_{3-8} heterocycloalkyl,
C_{1-10} alkoxy,
C_{1-10}alkyloxy C_{0-10}alkyl,
aryloxy,
C_{3-8} cycloalkyloxy,
C_{3-8} heterocyclyloxy,
C_{3-8} heterocycloalkyloxy,
C_{1-10} alkylcarbonyloxy,
C_{3-8} heterocyclyl C_{0-10} alkylcarbonyloxy,
C_{3-8} heterocycloalkyl C_{0-10} alkylcarbonyloxy,
C_{3-8} cycloalkyl C_{0-10} alkylcarbonyloxy,
aryl C_{0-10} alkylcarbonyloxy,
C_{1-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocyclyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} cycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
aryl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
(C_{1-10} alkyl)$_2$aminocarbonyloxy,
(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,
(C_{3-8} heterocyclyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,
(C_{3-8} heterocycloalkyl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,
(C_{3-8} cycloalkyl C_{0-10}alkyl)$_{1-2}$aminocarbonyloxy,
hydroxy C_{0-10}alkyl,
hydroxycarbonylC_{0-10}alkoxy,
hydroxycarbonylC_{0-10}alkyloxy,
C_{1-10} alkylthio,
C_{1-10} alkylsulfinyl,
aryl C_{0-10} alkylsulfinyl,
C_{3-8} heterocyclyl C_{0-10} alkylsulfinyl,
C_{3-8} heterocycloalkyl C_{0-10} alkylsulfinyl,
C_{3-8} cycloalkyl C_{0-10} alkylsulfinyl,
C_{1-10} alkylsulfonyl,
aryl C_{0-10} alkylsulfonyl,
C_{3-8} heterocyclyl C_{0-10} alkylsulfonyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylsulfonyl,

C_{3-8} cycloalkyl C_{0-10} alkylsulfonyl,

C_{1-10} alkylsulfonylamino,

aryl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,

C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,

cyano,

nitro,

perfluoroC_{1-6}alkyl, and

perfluoroC_{1-6}alkoxy, and

wherein R^2 is optionally substituted with at least one substituent, R^3, chosen from:

halogen,

(carbonyl)$_{0-1}C_{1-10}$ alkyl,

(carbonyl)$_{0-1}C_{2-10}$ alkenyl,

(carbonyl)$_{0-1}C_{2-10}$ alkynyl,

(carbonyl)$_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,

(C_{3-8})heterocycloalkyl C_{0-10} alkyl,

C_{1-4}acylamino C_{0-10} alkyl,

C_{0-10} alkylamino C_{0-10} alkyl,

di-(C_{1-10} alkyl)amino C_{0-10} alkyl,

arylC_{0-10} alkylamino C_{0-10} alkyl,

(arylC_{0-10} alkyl)$_2$amino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{0-10} alkyl carbimidoylC_{0-10} alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyl,

C_{1-10} alkoxy (carbonyl)$_{0-1}C_{0-10}$ alkyl,

C_{1-10}alkyloxy C_{0-10}alkyl,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

hydroxycarbonylC_{0-10}alkoxy,

(C_{1-10} alkyl)$_2$aminocarbonyloxy,

(aryl C_{0-10} alkyl)$_{1-2}$aminocarbonyloxy,

hydroxy C_{0-10}alkyl,

C_{1-10} alkylsulfonyl,

C_{1-10} alkylsulfonylamino,

aryl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,

C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,

C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,

cyano,

nitro,

perfluoroC_{1-6}alkyl, and

perfluoroC_{1-6}alkoxy, and

wherein R^3 is optionally substituted with one or more groups chosen from hydrogen, OH, (C_{1-6})alkoxy, halogen, CO_2H, CN, $O(C=O)C_1$-C_6 alkyl, NO_2, trifluoromethoxy, trifluoroethoxy, -$O_{(0-1)}(C_{1-10})$perfluoroalkyl, and NH_2.

15. (Original) A compound according to Claim 14, wherein X is hydrogen.

16. (Original) A compound according to Claim 15, wherein R^2 is chosen from:

halogen,

$(carbonyl)_{0-1}C_{1-10}$ alkyl,

$(carbonyl)_{0-1}C_{2-10}$ alkenyl,

$(carbonyl)_{0-1}$aryl C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl,

(C_{3-8})heterocyclyl C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkyl,

C_{0-10} alkylamino C_{0-10} alkyl,

arylC_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocyclyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkylamino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl aminocarbonylamino,

(aryl C_{1-10} alkyl)$_{1-2}$aminocarbonylamino,

C_{0-10} alkyl aminocarbonylamino,

C_{3-8} heterocyclyl C_{0-10} alkyl aminocarbonylamino,

C_{3-8} heterocycloalkyl C_{0-10} alkyl aminocarbonylamino,

C_{0-10} alkyl carbonylamino C_{0-10} alkyl,

C_{3-8} cycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,

C_{3-8} heterocyclyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,

C_{3-8} heterocycloalkyl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
aryl C_{0-10} alkyl carbonylamino C_{0-10} alkyl,
C_{0-10} alkylcarboxy C_{0-10} alkylamino,
C_{1-10} alkoxy,
C_{1-10}alkyloxy C_{0-10}alkyl,
aryloxy,
C_{3-8} cycloalkyloxy,
C_{3-8} heterocyclyloxy,
C_{3-8} heterocycloalkyloxy,
C_{1-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocyclyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} heterocycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
C_{3-8} cycloalkyl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
aryl C_{0-10} alkyloxy(carbonyl)$_{0-1}C_{0-10}$ alkylamino,
hydroxy C_{0-10}alkyl,
C_{1-10} alkylthio,
C_{1-10} alkylsulfonyl,
aryl C_{0-10} alkylsulfonyl,
C_{3-8} heterocyclyl C_{0-10} alkylsulfonyl,
C_{3-8} heterocycloalkyl C_{0-10} alkylsulfonyl,
C_{3-8} cycloalkyl C_{0-10} alkylsulfonyl,
C_{1-10} alkylsulfonylamino,
aryl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocyclyl C_{1-10} alkylsulfonylamino,
C_{3-8} heterocycloalkyl C_{1-10} alkylsulfonylamino,
C_{3-8} cycloalkyl C_{1-10} alkylsulfonylamino,
cyano,
nitro,
perfluoroC_{1-6}alkyl, and
perfluoroC_{1-6}alkoxy, and

wherein R^2 is optionally substituted with at least one substituent R^3.

17. (Original) A compound according to Claim 16, wherein at least two of U, V, W, and D are each N and provided that at least one of U, V, W, and D is CH

18. (Original) A compound according to Claim 1, selected from:

17β-[2-(butylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(anilino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridin-2-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[(2-methylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-methyl(phenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(4-fluorophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(benzylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(isopropylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridin-3-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(2-fluorophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(methoxyethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(2-piperid-1-ylethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(t-butyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(4-cyanophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(cyclohexyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(pyridin-4-ylmethyl]amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyrimidin-2-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridin-4-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(cyclopropylmethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(propylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(allylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(heptylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(octylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(hexylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(5-methyl-1,2,3-thiadiazol-2-yl)amino]-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{[2-(methoxypropyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(2-morphilin-1-ylethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(2,2,2-trifluoroethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[(pyridin-2-ylethyl]amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(guanidino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-1H-imidazole-5-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(acetamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(phenyl carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(thiephene-3-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(furan-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyrizine-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(thiephene-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-3-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-4-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-*t*-butyl-3-methyl-1H-pyrazole-5-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-proline-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-1H-imidazole-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1H-imidazole-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(methanesulfonamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(ethyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(isopropyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(2-fluoroethyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(*t*-butylcarbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one

17β-[2-(ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-pyridin-2ylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclopropylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclohexylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclohexylmethylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(morpholine-4-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(piperizine-1-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[N'-isopropylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridyl-3-ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[N'-(methylamino)ethethylureyl]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androstan-3-one;

17β-[2-(pyridin-2-yl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androstan-3-one;

17β-[2-(methyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyrid-3-yl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(ethyl acetyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(acetonitrilyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(2-chlorophenyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(methyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(phenyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(3,5-dimethylpyrazol-1-yl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(aminoacetyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[5-(amino)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(N-methyl-ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(N,N-dimethyl-ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one; and
pharmaceutically acceptable salts and stereoisomers thereof.

19. (Original) A compound according to Claim 18, selected from:

17β-[2-(butylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(anilino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(pyridin-2-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[(2-methylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-methyl(phenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(4-fluorophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(benzylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(isopropylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(pyridin-3-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(2-fluorophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(methoxyethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(2-piperid-1-ylethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(t-butyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(4-cyanophenyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(cyclohexyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(pyridin-4-ylmethyl]amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(pyrimidin-2-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(pyridin-4-ylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(cyclopropylmethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(propylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(allylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(heptylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(octylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(hexylamino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(5-methyl-1,2,3-thiadiazol-2-yl)amino]-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{[2-(methoxypropyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(2-morphilin-1-ylethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(2,2,2-trifluoroethyl)amino]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-{2-[(pyridin-2-ylethyl]amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(amino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(guanidino)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-1H-imidazole-5-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(acetamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(phenyl carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(thiephene-3-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(furan-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyrizine-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(thiephene-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-3-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridine-4-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-*t*-butyl-3-methyl-1H-pyrazole-5-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-proline-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1-methyl-1H-imidazole-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(1H-imidazole-2-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(methanesulfonamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(ethyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(isopropyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(2-fluoroethyl carbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(*t*-butylcarbamate)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one

17β-[2-(ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-pyridin-2ylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclopropylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclohexylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(N'-cyclohexylmethylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(morpholine-4-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(piperizine-1-carboxamido)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[N'-isopropylureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyridyl-3-ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-{2-[N'-(methylamino)ethethylureyl]-1,3-thiazol-4-yl}-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(ureyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androstan-3-one;

17β-[2-(pyridin-2-yl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androstan-3-one;

17β-[2-(methyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;

17β-[2-(pyrid-3-yl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(ethyl acetyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(acetonitrilyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(2-chlorophenyl)-1,3-thiazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one; and
pharmaceutically acceptable salts and stereoisomers thereof.

20. (Original) A compound according to Claim 19, selected from: 17β-[2-(methyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(phenyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(3,5-dimethylpyrazol-1-yl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[2-(aminoacetyl)-1,3-imidazol-4-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(amino)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(N-methyl-ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one;
17β-[5-(N,N-dimethyl-ureyl)- 1,2,4-triazol-3-yl]-4-methyl-4-aza-5α-androst-1-en-3-one; and
pharmaceutically acceptable salts and stereoisomers thereof.

21 to 23. (Cancelled)

24. (Presently amended) A method of treating a condition ~~in a mammal which is caused by androgen deficiency, which can be ameliorated by androgen replacement, or which can be increased by androgen replacement, which~~ selected from weakened muscle tone, osteoporosis, osteopenia, glucocorticoid-induced osteoporosis, periodontal disease, bone fracture, bone damage following bone reconstructive surgery, sarcopenia, frailty, aging skin, male hypogonadism, postmenopausal symptoms in women, atherosclerosis, hypercholesterolemia, hyperlipidemia, obesity, aplastic anemia and other hematopoietic disorders, inflammatory arthritis and joint repair, HIV-wasting, prostate cancer, benign prostatic hyperplasia (BPH), abdominal adiposity, metabolic syndrome, type II diabetes, cancer cachexia, Alzheimer's disease, muscular dystrophies, cognitive decline, sexual dysfunction, sleep apnea, depression, premature ovarian failure, and autoimmune disease, comprising administering to the mammal in need of such treatment, a therapeutically effective amount of a compound according to Claim 1or a pharmaceutically acceptable salt or a stereoisomer thereof.

25 to 30. (Cancelled)

31. (Original) A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 and a pharmaceutically acceptable carrier.

32. (Original) A composition of Claim 31, further comprising an active ingredient selected from:

1) an estrogen or an estrogen derivative, alone or in combination with a progestin or progestin derivative,
2) a bisphosphonate,
3) an antiestrogen or a selective estrogen receptor modulator,
4) an $\alpha v\beta 3$ integrin receptor antagonist,
5) a cathepsin K inhibitor,
6) an HMG-CoA reductase inhibitor,
7) an osteoclast vacuolar ATPase inhibitor,
8) an antagonist of VEGF binding to osteoclast receptors,
9) an activator of peroxisome proliferator-activated receptor γ,
10) calcitonin,
11) a calcium receptor antagonist,
12) parathyroid hormone or analog thereof,
13) a growth hormone secretagogue,
14) human growth hormone,
15) insulin-like growth factor,
16) a p38 protein kinase inhibitor,
17) bone morphogenetic protein,
18) an inhibitor of BMP antagonism,
19) a prostaglandin derivative,
20) vitamin D or vitamin D derivative,
21) vitamin K or vitamin K derivative,
22) ipriflavone,
23) fluoride salts,
24) dietary calcium supplement, and
25) osteoprotegerin.

33. (Original) A composition of Claim 32, wherein said bisphosphonate is alendronate.

34 to 37. (Cancelled)

38. A pharmaceutical composition made by combining a compound according to Claim 1 and a pharmaceutically acceptable carrier.

39. A process for making a pharmaceutical composition comprising combining a compound according to Claim 1 and a pharmaceutically acceptable carrier.

40 to 41. (Cancelled)